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ABSTRACT

This document on the planning and implementation of national information policies is addressed primarily to decision-makers and planners in governments and public institutions, which are increasingly faced with the problem of formulating policies appropriate to the growing importance of information as an essential national resource. Designed to provide guidance to those whose duty it is to translate information policy into ongoing activities, the document highlights the variables involved, illuminates problem areas, emphasizes questions, and identifies for its users the essential elements for designing information policies for their particular socioeconomic environment. The guidelines concentrate on major problems and address the following questions: identification of information requirements; means of satisfying information requirements; promotion of effective use of information; a basic policy statement with regard to the provision of information; information policy-making procedures; the implementation of information policy; and the national information coordinating organization. An introduction, which presents the rationale for a national information policy, an executive summary, and a 10-item bibliography are included. (THC)

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Guidelines on National Information Policy: (Scope, Formulation and Implementation)

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GUIDELINES ON NATIONAL INFORMATION POLICY:

SCOPE, FORMULATION AND IMPLEMENTATION

prepared by Mrs. Ines Wesley-Tanaskovic

General Information Programme

United Nations Educational,
Scientific and Cultural Organization

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PREFACE

This document is concerned with the planning and implementation of national information policies. It is addressed primarily to decision-makers and planners in governments and public institutions which are increasingly faced with the problem of formulating policies tangible with the growing importance of information as an essential national resource. It also attempts to provide guidance to those whose duty is to translate information policy into on-going activities. More specifically it is designed to highlight the variables involved, illuminate problem areas, emphasize questions requiring answers and identify for its users the essential elements for designing information policies for their particular socio-economic environment. Therefore, it is neither a collection of recipes nor a guide proposing a unique approach.

The formulation and implementation of a national information policy is a task involving information specialists as well as administrators and planners from different fields and at different levels, with the active participation of representative user-groups. If this task is to be performed effectively, the efforts of all concerned must be co-ordinated and their respective responsibilities clearly defined. The establishment of a national agency for information has been the action that many governments have taken in order to do precisely this, while making it clear that such an agency should serve as a co-ordinating mechanism rather than an operational body. Its policy function should be broad enough to cover all disciplines in all areas of applications. Its main task, therefore, should be to ensure that the combined efforts, however dispersed, are on the right scale, properly balanced, make an effective use of available resources and are implemented in accordance with the national development plans.

In this respect, Unesco has endeavoured to help its Member States meet their information needs and to provide them with appropriate guidelines for action. Thus, in 1972, the General Conference of Unesco, at its seventeenth session, launched the UNISIST intergovernmental programme for the advancement of scientific and technological information considered a basic resource for socio-economic development. Recognizing that the active participation of Member States was needed for the successful implementation of this programme, the General Conference invited Member States to establish (1) national focal points concerned with questions of national information policy formulation, planning and co-ordination, and (2) UNISIST national committees to serve as national links with the UNISIST programme of Unesco. To this end, the Director-General sent out a circular letter in 1973 (CL/2297).

A checklist of proposals for information policy objectives was prepared later, taking into account the functions assigned to the national focal points. This document was based on one of the recommendations of the UNISIST Intergovernmental Conference (Paris, 1971) which stated: 'A governmental, or government-chartered, agency should exist at the national level to guide, stimulate and co-ordinate the development of information resources and services in the perspective of national, regional and international co-operation'. This checklist came to be known as Information Policy Objectives (UNISIST Proposals), (SC/74/WS/3, Paris 1974) and has been widely used for many years.

The remarkable changes in the attitudes of most countries towards information during the past decade have vindicated the choice of these objectives; their basic principles are still valid today and applicable to all fields of knowledge. Many governments have adopted the original UNISIST concept of the establishment of co-ordinating mechanisms or focal points in their national information systems and, in doing so, they have increasingly concentrated their attention on information as a resource to be used for economic and social development and on the application of modern technology. The UNISIST programme followed this evolution and adjusted its aims to the changing needs of Unesco's Member States.

Thus, the UNISIST intergovernmental programme was strengthened by its merger with Unesco's programme for documentation, libraries and archives to form the General Information Programme (PGI) following the nineteenth session of the General Conference of Unesco in 1976. It has expanded its scope to include not only scientific, technological and mainly bibliographic information but also other fields of knowledge and other kinds of information. All subsequent meetings and studies sponsored by PGI, in particular the Second UNISIST Intergovernmental Conference (Paris, 1979), supported this expanded concept of information and emphasized anew the need for a revision of the functions of national focal points and for improved co-ordination in national systems.

Over the five years which followed the Second UNISIST Conference in 1979, the rapid achievements in the field of new information technologies, with their widespread repercussions, both outside and inside the information field, have already generated significant changes in policies and practices for the provision of information the world over, though in various degrees and in manners which differ from one place to another. This being so, it ensues that new solutions must be sought. Conscious of this trend, Unesco has studied its implications carefully and in the elaboration of the Organization's Medium-Term Plan (1984-1989) they were borne in mind.

The scope and structure of Unesco's Major Programme VII 'Information systems and access to knowledge', duly reflect the concerns of Member States which have to take up the challenge and adapt their strategies in order to increase their national capabilities for providing and exploiting information for development. Many opportunities for assistance are offered in the Programme. One of the programme elements with a high priority is assistance for the formulation of national information policies and plans based on the assessment of the potential for the application of modern technologies. Strengthening Unesco's communication links with national focal points and national committees and liaising among them is considered of the utmost importance in this regard, as is the production of appropriate guidelines for action in Member States, especially as regards the finding of a solution to the co-ordination problems of national information services in general.

The present guidelines are a revised version of the original UNISIST proposals. The text explores the alternatives open to decision-makers and draws together some of the lessons of experience which can be inferred from past efforts. It attempts to place the functions (stimulation, co-ordination, financial support) of the earliest national focal points and UNISIST national committees within a new, broader context and show what implications this may have on their establishment and administration. However, it is designed only to provide the general concept for formulating and co-ordinating the national information policies from which the users are free to draw those ideas which they feel best suit their national situation.

These guidelines were prepared under contract by Mrs. I. Wesley-Tanaskovic and were based inter alia on material prepared by S. Adams, J. Gray, K. Keren and S. Parker. The draft was submitted to a thorough discussion during the International Seminar on National Information Policy and Planning organized by Unesco/PGI in collaboration with the Yugoslav National Commission for Unesco and the International Referral Centre for Information Handling Equipment (IRCIHE) in Dubrovnik (June 1984). The seminar was attended by Mr. F.S. Abdul-Razzaq (Iraq), Mr. A. Adu (Ghana), Mr. J. Bao (People's Republic of China), Mr. P. Canisius (Federal Republic of Germany), Mr. M. Djurovic (Yugoslavia), Mr. R. A. Gietz (Argentina), Mr. B. Kustrin (Yugoslavia), Mrs. S. Lampert (Jamaica), Mr. R.S. Mabomba (Malawi), Mr. M.A.K. Madkour (Arab Republic of Egypt), Mr. A. Marks (Netherlands), Mr. J. Mihel (Yugoslavia), Mr. B.M.Y. Mohdnoorajala (Malaysia), Mr. H. Schälger (Austria), Mrs. E. Tornudd (Finland), Mrs. N. Tudor-Silovic (Yugoslavia), Mrs. M. Trask (Australia), Mrs. F. Zahawi (Arab League), Mr. Zultanawa (Indonesia) and Mrs. I. Wesley-Tanaskovic as consultant and several observers.

Comments and suggestions regarding these guidelines are welcomed, and should be addressed to the Division of the General Information Programme, Unesco, 7 Place de Fontenoy, 75007 Paris.

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EXECUTIVE SUMMARY

(A step-by-step approach to national information policy formulation and implementation).

STEP 1 - Determine the overall framework for the project (paragraphs 1-21)

Aim: identify the information fields to be covered

Issues/questions:

- decide what information we are dealing with (STI, numerical bibliographical ...)
- concentrate attention on information as a resource for economic and social development and on the application of modern information and communication technological devices for the advancement of this development.
- emphasize the magnitude of current investments and attempts made to draw up information policies for better channelling and concentration of these investments.

Possible action:

national negotiations and consultations through interviews and visits; international assistance

STEP 2 - Define the scope of the needed national information

A. Assessment of information needs (paragraphs 22-28)

Aim: identify where and for whom information is required

Issues/questions:

- is there an assessment of national development goals?
- which development area require significant use of information?
- what are the user groups?
- are the information requirements in keeping with the country's major national development goals?
- is there an assessment carried out on the relative value to users of libraries?

  archives?
  translation/documentation facilities?
  information analysis and repackaging services?
  extension services?
  referral services?

- have the areas in which information is needed been ascertained? (current research; technical specifications; statistical data ...)?

- to what extent do general information services (national libraries; computing centres) provide back-up service to more specialized services?

Possible action:

survey through interviews; analysis of data collected

B. Means designed to satisfy information requirements (paragraphs 29-51)

Aim: Identify the extent of information handling and existing information services.

Issues/questions:

- to what extent is information (published or unpublished) generated?
  - . is it based on recording and processing local data?
  - . is it made widely known?
  - . who generates information (government, local publisher)?
  - . is it being encouraged (by legislation - copyright; by subsidies; by government support)?

- to what extent is information collected from abroad?
  - . are there any organizational measures to facilitate it?
  - . are there any sustained financial resources?
  - . what factors affect its functioning (import agencies, transportation, postal systems, customs, foreign exchange regulations)?
  - . is there a trend towards the use of computerized services and telecommunications?

- how effective is the distribution of information?
  - . is there an effective system for the distribution of information (local and foreign) through booksellers, local agencies?
  - . is the existence of information locally recorded and announced?
  - . national bibliography at regular intervals?
  - . legal deposit firmly enforced?
  - . does it cover unpublished information or information published by computerized processes?
  - . are the contents of documents made known?
  - . what are the facilities of access to international abstracting and indexing services?

. what are the most common forms of document delivery used in the country? (libraries; documentation centres;)

. what local and national referral services exist in the country (guides to information sources; directives; inventories; centres ...)

- to what extent is the provision of information organized?

. what institutions are involved in the provision of information?

. is there any co-ordination of their activities?

Possible action:

survey through interviews; international assistance.

C. Promotion of the effective use of information (paragraphs (52-57)

Aim: identify the users' awareness of information importance.

Issues/questions:

- is there any education and training of users?

- any popularization activities?

- any research in information science?

Possible action:

survey through interviews of educational institutions and of users.

STEP 3 - Formulate a national information policy (paragraphs 58-64)

A. Prepare a basic policy statement (paras. 58-64)

Aim: to provide a basis for planning and effective co-ordination of information activities and assign the responsibilities for ensuring the provision of information services.

Issues/questions:

- is there already some kind of policy?

. formal statements of national information policy issued?

. official policies embodied in legislation (copyright, legal deposit, library services)?

. policies established by custom?

. policies implied in broader policies of parent organization?

- is this policy endorsed by the government?

- is this policy formulated for broad structural and operational objectives?

- does this policy recognize the need for effective co-ordination (or co-ordinating mechanism)?
- does this policy emphasize the provision of information in accordance with national development goals?

Possible action:

consultation meeting of those responsible for information activities.

B. Establish policy making procedures (paragraphs 65-78)

Aim: to set up a formal procedure for defining the national information policy and reviewing it periodically

Issues/questions:

- is there an existing permanent diagnosis of the current information situation (information requirements and information services)? (see also Step 2)
  - . is it done by a group of information specialists?
  - . on what studies is it based?
  - . are the users involved in the survey?
  - . are independent investigators involved?
  - . is any attempt made to take into account future information requirements?
- are the policy implications of the information situation assessed?
  - . do information services cater to information requirements
  - . what are the shortfalls and where?
- formulate an information policy
  - . are authorities involved in allotting resources acquainted with the diagnosis?
  - . at what government level should the policy based on the diagnosis be endorsed (national legislature, Council of Ministers or appropriate local equivalent)?
  - . is it appropriate to set up special task forces to work on the policy formulation?
  - . is it appropriate to set up a special committee to review from time to time the national objectives and priorities and reformulate the national information policy accordingly?

Possible action:

call upon international assistance for consultants, experts; regional pooling of experts; mobilize local staff (subject experts, information specialists, policy makers ...); prepare for circulation a document on national experience; organize seminar to discuss policy implications at national level.

C. Establish a policy-making organization (paras. 79-94)

Aim: provide a structural framework to carry out the activities under B above.

Issues/questions:

- study the need and usefulness of creating an ad hoc committee representing organizations with a major interest in national information policy
  - . does any such committee exist already?
  - . what should be its size and composition?
  - . what should be its functions (supervisory, surveys, initiating MTP, budget)
- what are the borderline interests represented (advisory services, mass media, management information services)?
- is the interest confined to STI or any other field?
  - . does it have sufficient staff and resources?
- what aspects of policy organization need to be considered?
  - . is provision of information to be centralized or decentralized?
  - . to what extent do budgets for information activities need to be decentralized? how much control should be given over them?
  - . are information responsibilities clearly defined? for specific missions? archives? STI?
  - . should new organization(s) be created for policy planning and the co-ordination of information provision? or should these responsibilities be assigned to existing ones? or responsibilities be retained by committee?
  - . is the organization which is most likely to replace the committee the 'national focal point'?
  - . does the committee (or another organization) supervise studies on information requirements and existing services? on a permanent basis?
  - . does it receive advice from information users?

Possible action:

survey through interviews and visits; analysis of data collected; design of the most suitable information policy making organization

STEP 4 - Implement the information policy (paragraphs 95-104)

A. Planning and setting priorities (paras. 95-104)

Aim: determine the priorities among the various policy provisions for a better allocation of resources

Issues/questions:

- are there any plans designed to implement the provisions of the national information policy?
  - . is this performed at a professional co-ordinating level?
  - . are the users involved in the planning process?
  - . are the plans flexible enough to be subject to modification?
  - . are the plans approved at the relevant government level?
  - . are the implementation tasks distributed among the institutions concerned?
  - . is the budgetary allocation distributed according to the priorities?
- is the time element adequately taken into account for the selection of priorities in the implementation of the policy?
  - . are priorities set over a given period of time?
  - . what is the balance required between priorities for short-term and long-term planning?
  - . has a medium-term plan (5-6 years) been prepared or been assigned?
- are there any plans to identify the categories of information that are best obtained from national sources? through regional cooperation?
- are there any plans to introduce new information technologies in the local data bases of the essential services (national and local statistics, inventories of current research, referral services ...)?
- was there any attempt made to make use of resources available outside the country (remote consultation, abstracting and indexing services, computer based searches ...)?
  - . are there any easily accessible information locations? community information services?
  - . are there any effective lending arrangements?
  - . are there any links with other national nodes?
- are there any information programmes (national or by sector) in preparation?
  - . do these programmes state clearly the new services foreseen? the improvement? the support activities?
  - . are the programmes fairly realistic in size?
  - . are the programmes submitted to a national policy co-ordinating body?
- are the budgets adequately prepared?

. was there any comparative study made on the costing techniques?

. are the budgets prepared for a given period of time?

. is the budgeting centralized or decentralized?

. is provision of information considered as an overhead item of expenditure? what are the percentages?

- Is there a permanent planning mechanism established for the implementation of the information policy?

. is there a national information co-ordinating organization (NICB)?

Possible action:

comparative study of the priorities in the various policy provisions; budget allocations; level of government approval; design a national mechanism for information policy implementation

STEP 5 - Develop a national information co-ordinating organization (paragraphs 129-152)

Aim: Harmonize all the information activities and stimulate the development of information resources and services

Issues/questions:

- what are the various focal points established in the country (FAO: UNEP ...)

- what would be the most generally acceptable location in government for the NICB? (planning commission?)

- what responsibilities should be allocated to NICB (co-ordination or policy or both?) in the current context in the country? (programmes?)

- what structure should be given to the NICB in view of local circumstances? Staff size and competence?

- what status should have the NICB officers?

- how should NICB proceed in the establishment of its main functions?

. initial co-ordination of assessment of information requirements?

. allocation of responsibilities?

. preparation of Medium-Term Plan

. promote regional co-operation

Possible action:

determine the location of the NICB; define its functions and status; set up NICB operations through national negotiations and agreements

INTRODUCTION

These guidelines concentrate on major problems related to national information policy and planning, and focus on the following main questions:

identification of information requirements;

means of satisfying information requirements;

promotion of effective use of information;

a basic policy statement with regard to the provision of information;

information policy-making procedures;

the implementation of information policy;

the national information co-ordinating organization.

In the Introduction the rationale for a national information policy is briefly restated. The need to produce guidelines is argued, their purpose and form of presentation are discussed and an attempt is made to determine their respective target audiences.

It is suggested that the guidelines are to be addressed primarily to information-related planners, particularly in developing countries, and to information specialists responsible for the formulation and the implementation of the national information policies, for their guidance as well as for helping to ensure that, as a national resource, information is properly recorded and used in the best interest of society and of its individual members.

* * * *

I. Information as a resource for development

1. The concept of information as a national resource for social and economic development has come to be widely accepted in recent years. Nevertheless, while the rapid delivery of the right information to the right user at the right time and place is confidently forecast on the basis of the current advances in the field of information and communications technologies, what has not been yet fully developed, are the social and institutional mechanisms to share, diffuse and utilize the information which is being generated. All countries recognize today that the capacity to utilize information and knowledge is the basis of progress and of social well-being. Increasingly, information is recognized by planners and administrators as indispensable to all the processes essential to development.

2. The problems arising in connection with the handling of the ever-increasing volume of information are a cause of growing concern to national policy-makers and information-related planners alike. Hence the pressures which are being exercised on national governments to lead them to promulgate information policies which will provide guidance and support to those involved in producing, transferring and using information and help ensure that, as a national resource, information is properly recorded, stored and used in the best interests of society and of its individual members.

II. The need for a national information policy

3. Governments are still striving the world over to ensure that the information requirements of society are met and that users have access to and can fully utilize the information they need to carry out their respective functions; they are striving to define and implement a national information policy. A strong case can be made out for governments deciding on a national policy for information in accordance with their development plans. Most governments have already made major investments in the acquisition and delivery of information, either for its generation by means of research and surveys, its management in information centres, archives and libraries or for its distribution by various means. The magnitude of these investments suggests the need for a national information policy designed to guide those responsible for setting relevant priorities and for the latter's implementation.

4. In addition, governments should be able to exercise a certain measure of co-ordination of activities carried out for the implementation of such priorities. Interest in the supply of information is increasingly growing among non-governmental institutions and associations, but also within individual government departments. Very naturally, there has been a tendency for all these agencies, both public and private, to elaborate their own information policies, designed to meet their own specific needs, and these agencies do not usually make any attempt to share their resources. The absence of co-ordination at the national level entails a wasteful duplication of work, on the one hand, and on the other, leaves considerable gaps in the provision of information, thus making it difficult to concentrate investment on the provision of information in areas of national economic and social importance.

5. The information policy problems recently entailed by the new information and communications technologies are likely to require increasing attention,

given the rapid pace of technological advance and the prospect of cheaper storage, handling and communication of information. What is even more important, is the information-handling capability offered by some of the new technologies which has increased enormously and, as a consequence, the potential for meeting the needs of users has increased proportionately and must certainly be taken into account when national information policy is being formulated.

6. At present, the situation is, and will continue to be, dynamic: it must therefore be constantly monitored. International networks are coming into being and are beginning to spread from the industrially developed to the developing countries. This trend will be accentuated as new communication technologies, such as fibre optics and satellites are more widely used. Access to world-wide information systems will then become easier, but it will have to be secured through deliberate policy decisions. At the same time, advances in micro-processing and high-density storage make it increasingly convenient, even in small countries, to access locally produced files of information. These two trends increase the feasibility of providing ready access to regional databases. These databases of common interest may be produced jointly by the countries of a given region. This is an important issue to be discussed during the elaboration of national information policies.

7. There is nowadays a growing awareness of the fact that the convergent advances in the technologies of the fields of computers, audio-visual media, and telecommunications have a marked impact on all societies and that this impact will accelerate the present evolution of the world system. The most striking feature of the emerging 'information-oriented' society is the rapid progress of technology and the attendant introduction of innovative information and communications systems. These advances affect all major sectors and have changed people's ideas of the role of information in contemporary society. Thus, information and communications have become, to an unprecedented degree, part of the preoccupations of policy-makers in the social, economic and cultural fields, both at national and international levels. Therefore, a major concern in the elaboration of national information policies is to develop strategic interventions designed to ensure that the emerging information society contributes to national development everywhere, removing the present global imbalances and inequities.

III. For whom are the guidelines intended

8. The guidelines are intended for use primarily by information planners as well as by information specialists concerned with the formulation and implementation of national information policies and plans. They may be useful to information-related policy-makers in government agencies or non-governmental bodies engaged in elaborating national information policies and plans for the attention and final endorsement of Government.

9. In general, as far as high-level decision-makers or 'politicians' are concerned, the imperative need is to find how best to convince them that information is an indispensable and basic resource for effective development planning and to win them over to recognize the need for incorporating information planning into national development plans. In this connection, the implications of recent advances in information and communications technology, particularly in the field of microcomputing and telecommunication networking,

provide the opportunity for presenting a powerful case as to the imperative need for formulating national information policies and plans. The mass media could also be mobilized to sensitize all levels of the society as to the importance of information for various activities and to its effective use.

10. However, even where the importance of information services is appreciated by high-level decision-makers, the need for a coherent and systematic national information policy and plan may not be appreciated. In the absence of information policies and plans, incorporated or closely geared to development plans, the utilization of relevant information may be haphazard with the result that decision-making tends to be ad hoc because it is not backed by all the relevant information that could have been mustered. Hence the importance of general guidelines which would enable the formulation of information policies, plans and strategies and facilitate their adoption nation-wide, at all the levels of development decision-making.

IV. What kind of guidelines are required

11. Owing to the diversity of socio-economic circumstances in various countries, the guidelines need to be relatively general and adaptable for use in countries at different levels of economic and social development and in various cultural contexts. It does not seem realistic to expect that the integral text of the guidelines would be appropriate for any one country as it stands, but at least parts of it should find application in individual countries. It has also been considered as important that the mode of presentation of the guidelines be sufficiently simple (without necessarily being too simplified with loss of content), so that they can be readily followed by as many people as possible, who may be involved, in one way or the other, with national information policy and planning or in implementation activities.

12. Due to the rapidly changing information situation brought about, principally, by advances in information and communications technology and also, to some extent, by the variations in the economic fortunes of many countries - not necessarily for the better - it is important that information policies and strategies be periodically reviewed for such modifications as may be necessary in the light of changing conditions. The guidelines should, in this connection, make proposals for alternative approaches or options, where relevant. The guidelines may have to be modified to reflect changing conditions. It also follows that no one set of guidelines can be prepared for all time.

13. For greater effectiveness the guidelines would have to be backed by case studies of experience of countries which have been relatively successful (the case studies should include not only successes but also pitfalls that could be avoided) in organizing national information services answering to national development goals. It would also be desirable to undertake studies in certain key-areas in order to obtain pertinent information, currently lacking, which would be of value to planners, e.g. comparative analyses of the proportion of the total national budget devoted to the provision of information services and its sectoral breakdown.

14. It is generally considered as being of little benefit to produce guidelines, distribute them in some habitual way and then wait for 'feed-back' as to their acceptance by Member States. Obviously, a more desirable practice would be, especially in cases of guidelines dealing with such broad and important issues as national information policy and planning, to organize in a systematic manner, appropriate meetings for their review at the national and regional levels, possibly with the help of Unesco.

THE SCOPE OF A NATIONAL INFORMATION POLICY

The pre-requisite to the elaboration of a national information policy is essentially to identify the main information requirements of society, particularly in relation to national development goals, and its objective is to ensure that these requirements are met as fully, promptly and conveniently as available resources allow. This implies that the elaboration of a national information policy comprises:

the identification of the information requirements of society;

devising means to ensure that the identified requirements are met;

the promotion of the effective use of information sources.

The scope of the national information policy covers the different aspects of the provision of actual services to various users' communities, but it goes much further than this. It also includes manpower development (information specialists), the building-up of the necessary infrastructures and ensuring continuous adequate funding.

All members of society need information. The potential value of information is realized only when it is used. The ability of users to make effective use of information may be enhanced by user education and popularization of information services. Hence, the important part to be attributed to promotion activities within the scope of a national information policy. There should be a deliberate policy of creating information mindedness and raising community participation.

These various issues are covered in the following chapter in addition to a review of the organizational framework needed within which the various information services can operate and function effectively, being at the same time stimulated to undertake co-operative activities.

I. Identification of information requirements

15. It is of fundamental importance that information requirements should be subordinated to the national development goals as in most countries information resources are limited. It is impossible to meet all the information requirements that can be identified in a society: one must necessarily be selective and have orders of priority in relation to national development goals, but also identify the level of services that has to be provided throughout the country. Investment in the provision of information, therefore, needs to be concentrated in areas of major economic and social importance.

16. Such a commitment normally leads to the sectoral development of information services, which, in the absence of an effective co-ordinating mechanism, generally implies a costly duplication of efforts. Sectoral services, though

in many instances adequate and efficient, tend to develop independently and their progress can be uneven; some sectors in priority areas progressing well and others not. In order to ensure that the information requirements in a given country are met in a coherent manner while respecting the priorities of national development, co-ordination should be foreseen. This becomes essential with regard to the infrastructural basic elements of any national information system such as the supply of general information services, the application of new technologies and manpower development which should be tackled on a nation-wide basis.

17. The assessment of development goals, and of their respective priorities for information purposes, must take into account all the complexity of the national planning process; there is no simple way round it. To approach the various planning organizations, obtain statements on their goals, choice of action, priorities and phasing arrangements, is a pre-requisite to determining the scope of a meaningful national information policy. The next step is to infer from the goals and priorities stated, the problems and situations that may require a significant use of information and to identify its possible user-groups; those which now exist as well as those which may exist in the future.

18. This step should be carried out with care since the attainment of any goal is likely to require the fulfilment of a great variety of information needs and to involve a wide range of users - from the most sophisticated professional and the general reader who has important tasks to perform in a particular sector, up to the farmer maybe illiterate who also has something to contribute and can be helped by relevant information. Also, it is to a certain extent a fore-knowledge of the future since neither the uses nor the users are likely to be perceived clearly at the time the development goals are set.

19. The task here is to state what types of information are needed to meet the requirements of various users within each sector of economic and social development (scientists, technologists, engineers; managers, administrators; educators, students; practitioners, consumers, farmers, etc.). This involves assessing the relative values to users, in a changing situation, of archives; library, translation and documentation services; information analysis and repackaging facilities; extension services, popularization programmes; referral services, experts' services, consultation bureaux; seminars, conferences, workshops; etc.

20. The task also includes ascertaining whether information is needed on current research, technical specifications, standards, patents, statistical data, graphs, maps, etc. The extent must be determined to which general information services (e.g. the national library, computing centre, government publishing house) should provide back-up to other more specialized sectoral services. Finally, since the situation is changing, and changing rapidly, the assessment has to be regularly up-dated and policy amended accordingly.

21. In addition to the requirements related to the information needed in the short and medium term for current national development goals, national funds should be available for the study of future long-term requirements. Therefore, when assessing information needs, a balance should be maintained between sectoral and general services, on the one hand, and between present and future needs, on the other. The level of service aimed for should also be defined beforehand.

II. Means designed to meet information requirements

22. Policy issues which should be considered under this item include all aspects of the generation of information (e.g. publishing industry; legislation, such as patent laws and copyright; government support to oral tradition); the collection of information (e.g. acquisition of foreign publications); the distribution of information (e.g. national bibliographies, abstracting and indexing services, computerized information networks, document delivery systems), the organizational framework and the provision of resources (e.g. manpower, physical facilities and funding).

Generation of information

23. Action along these lines will help to improve the generation of both published and unpublished information based on the recorded and processed local data. However, it is generally agreed that considerable information exists in oral tradition so that it is possible to give a wrong assessment of the value of recorded information opposite to unrecorded information. Thus, for instance, important oral traditional information exists on history, folklore and medicine. It should be part of the national information policy to cater for the collection, evaluation and storing of such information for potential users. Generation of information from traditional sources is one way of securing wider community participation. The existence and availability of both types of information, once generated, should be made widely known.

24. In many countries, the most prolific producer of domestic information is the government. One method of generating useful information relevant to development planning is to add a small sum to the cost of every important project so that on the completion, a brief appraisal on it is provided. This appraisal would include any problems encountered and an evaluation of the results achieved. Such information could be fed into the databank of an appropriate national documentation centre. It is also important for governments to have clearly defined policies with regard to classified information in particular regarding their declassification. There are several instances where the existence of vital information contained in classified documents get lost in course of time because there is no decision as to when they should be declassified. The result is that feasibility studies, surveys, recommendations by expert bodies and the like may be duplicated at needless expense.

25. In considering the generation of information it is essential to bear in mind that information is generated not only by government and public institutions but also by the private sector. It is not often possible to deliver information free-of-charge. However, experience has shown that where users' demands can be readily met, users are prepared to pay reasonable fees, the more so, if they realize that the charges can be used to improve the quality of information offered. A strong local publishing industry, bringing local information in local languages, is important in all countries and may be encouraged by legislation (copyright, taxation laws), the grant of subsidies by interested organizations, and by government support whenever necessary, e.g. to enable the production of adequate reading material to the newly-literate.

Collection of information

26. Obtaining information materials from other countries in addition to those produced locally, is an important and complex task. Information from abroad is usually expensive and difficult to collect, although it may bring real economic and other benefits. Its acquisition by purchase, exchange or inter-

national assistance requires adequate organizational measures and sustained financing. The acquisition of publications from other countries is affected by import agencies, transportation, the postal system, customs and foreign exchange regulations and several other factors.

27. The introduction of computerized services and telecommunications has added a new dimension to the access to information networks worldwide. They require special attention from all countries, in view of information-related planning, because of their enormous potential, and also because of the legal problems they raise. Although they are publicly accessible by means of international telecommunications, the cost is often prohibitive, which hinders their use, especially in developing countries where the situation is aggravated by the lack of adequate information infrastructures needed for their full exploitation.

Distribution of information

28. All countries need an effective system for the distribution of information from both local and foreign sources, to both direct users and all kinds of depositories, through booksellers, subscription agents and other local distributors including electronic mail offices. It is also necessary to ensure that the existence of the information materials is regularly announced.

29. The record of the publishing output of a country is its national bibliography; it is used at regular intervals and provides complete descriptions of all documents published in the country. The essential basis for the national bibliography is the practice of legal deposit which must be firmly enforced if it is to be effective. National bibliographies and legal deposit do not normally cover the information unpublished, orally transmitted or computer-generated. Records of these categories of information are often inadequate and should be improved. A systematic approach should be developed within the framework of activities known as 'Information on information', in this respect also, to make them better known.

30. Many users need more detailed information on the contents of documents than that which is provided in bibliographies. This need is met by abstracting and indexing services which to an increasing extent are able to substitute for the original document at least for certain categories of uses and users. Many of them are international in scope and operating in the industrialized countries. Such services were originally published in conventional format, later they became also available in computerized form and now a considerable number are available only in computerized form.

31. There is no point in providing bibliographic listings if users cannot obtain copies of the documents they need through some kind of document delivery system, apart from the distribution systems just referred to. Documents are, as a rule, delivered through libraries and documentation centres, which should possess a good selection of basic works and heavily used materials. However, certain documents required by users will not be available in any library or documentation centre in the country and must be sought abroad. National, regional and international co-operation is therefore an essential foundation for effective document delivery.

32. Significant guides to information sources of all kinds (directories of national sources of information, research in progress, inventories of facilities and of experts) form the basis of referral services. Interlinked, these local and national referral centres, linked to the corresponding international centres, would make up the global referral network envisaged by the United Nations.

Organizational framework

33. The functions of recording data, generating information, producing documents, distribution, storing and retrieving them, involve a wide variety of institutions, including: research institutes, educational institutions, statistical agencies; records units, archives, museums; printers, publishers, booksellers, subscription agents; abstracting and indexing services, bibliographic agencies, libraries, documentation centres, information centres; computer centres, software houses, telecommunication agencies; broadcasting stations, extension and advisory services, popularization programmes; etc. Such a proliferation of institutions concerned with information is to be found in all countries.

34. Information policy at the national level should be concerned with establishing the conditions for the effective management of information by providing a sound organizational framework within which the various institutions can operate, as well as adequate resources for them to function effectively. No single type of organizational framework is suitable for all countries. The pattern will vary indeed according to local conditions.

35. Stimulation and monitoring of co-operation activities undertaken by the existing institutions is likely to be the most practical solution of organizational problems in many countries, involving as it does the establishment of some kind of co-ordinating mechanism. Effective co-ordination can only be achieved on the basis of common objectives within the framework of the overall information policy. The establishment of a suitable co-ordinating mechanism may require legislation in order to reinforce the spirit of co-operation among those involved.

Provision of resources

36. To ensure that the organizational framework for the provision of information functions effectively, the institutions involved must be supplied with adequate resources: manpower, physical facilities and funds which constitute the national information infrastructure.

37. Manpower. The most important resource is manpower. No matter how generously physical facilities and money are provided, they can only be effectively used if an adequate number of properly qualified persons are available. The range of skills required is wide and not confined to any one profession. It embraces the expertise of: authors, publishers, booksellers; records managers, archivists, librarians, information scientists, extension workers, advisers and consultants; computer specialists, telecommunications engineers, audio-visual specialists, broadcasters and many others - in short, all those who are involved in the process of generating and communicating information.

38. Two particular profiles of expertise in relation to information activities deserve special attention: first, there should be sufficient intermediaries (or extension personnel) who can interpret highly technical materials into forms assimilable by the general user who needs this information; secondly, there is an increasing demand everywhere for information-related planners, therefore training programmes in the planning of information systems should be instituted for suitably-qualified personnel.

39. The specific problems associated with the provision of manpower are those of attracting suitable candidates, offering opportunities for vocational education and ensuring adequate remuneration, status and career prospects. The

stimulation and support of research in information science is equally necessary in order to improve the quality of services and to deepen the understanding of the information problems of society by the specialists concerned.

40. Physical facilities. Adequate physical facilities (buildings, furniture and equipment) especially those needed in the use of modern information technologies, must be provided in order to enable information specialists to carry out their work properly. This includes preparing plans and technical specifications for the facilities, identifying sources of supply and ensuring that the facilities and equipment are suitably installed and maintained. However, the dangers of considering computerized facilities as an end in itself or a panacea to all problems of information should not be overlooked. This requires sound expert judgement.

41. New advanced techniques for handling information have made an extremely rapid progress in recent years, especially in the field of microcomputers. The advent of the microcomputer is unanimously recognized as a revolutionary development with far-reaching implications for information planning. Microcomputers have the important feature of modularity, on the one hand and versatility on the other. They can readily interface with intermediate systems and be linked in local and regional networks. Their introduction raises some general policy questions, e.g. whether the new information technologies should be regarded as simply providing more effective tools for the implementation of information policies, or whether they should be seen as an important factor influencing the formulation of this policy.

42. The prevailing trend towards ever less expensive storage, smaller and cheaper computers and simpler albeit more versatile working methods suggests that this technology is moving much closer than ever before to meeting the needs of tremendous numbers of users all over the world. Thus, to keep abreast of new developments in this field is of vital importance for all countries and assistance should be sought, when needed, in this respect from relevant international organizations, especially of the United Nations system.

43. Funding. A further important policy objective is to ensure that adequate and reliable funding is available for both investments and recurrent expenses made to support the desired level of information provision and infrastructural building-up. It is also important to keep a satisfactory balance of financial responsibility between different sources of financing.

44. Lack of money is often seen as the main obstacle to the improvement of information provision and the necessary infrastructure, particularly in developing countries. It would be more accurate to say, however, that it is the will to spend money on information instead of on some other activity which is lacking, rather than the money itself. A society which has announced its commitment to improving information provision can do so, if it wishes, by allocating to that objective means which might otherwise have been spent in other ways. Thus the choice between competing demands for limited resources is a political decision.

III. Promotion of the effective use of information

45. It may be appropriate at this stage to briefly outline some basic issues which warrant the promotion of information use. All members of society need

information. It is a truism, though too often overlooked, that the potential value of information is realized only when it is used. All members of society use information, both information orally transmitted and recorded, either directly or indirectly through intermediaries. The usefulness of an item of information depends on its relevance to the needs of the person making use of it. Information which is relevant to the needs of users may be used either to add to their knowledge or to help them solve problems.

46. All members of society use information to make decisions, many of these decisions necessarily related to societal development. In acknowledging the importance of providing information for decision-makers, therefore, it is necessary to recognize that this applies, not only to those making decisions at the higher levels, but to all those involved in the life and development of the community. Information is not only a basic resource for decision-making and problem-solving, it is also the key to the effective exploitation of other resources, since society cannot make effective use of resources about which it knows too little. Information, therefore, is rightly considered as a basic resource for development.

47. The ability of users to make an effective use of information depends upon their general attitude towards information, i.e. upon their awareness of its importance for their various activities, upon their knowledge of the existence of relevant information sources and services, their familiarity with the techniques for accessing sources and, sometimes also, upon their linguistic and intellectual capabilities. All of these may be enhanced by the education and training of users in schools and universities as well as 'on the job', but also through popularization and demonstrations, stressing the potential uses of information and announcing the existence of relevant services and the creation of new ones.

48. The foregoing implies that user education has to be organized at different levels. At the school level, consideration should be given to the possibility of incorporation of relevant materials on user education into some traditional subjects in the school curriculum. Since user education in schools has to rely primarily on the school teacher, the training of teachers or specialists in user education is an issue of the outmost importance, requesting among other instruction manuals on user education for teachers.

49. 'User education' is vital to all countries because information is at present seriously under-utilized and because it has to be conveyed to many different users at different levels of understanding. User education is, therefore, an essential component of the national information policy, which should ensure that it is organized properly and adapted to the intellectual and emotional capabilities of various categories of users. It appears, in retrospect, that in building-up information systems in most countries, the emphasis has been placed on the supply of information services, and too little importance has been attached to the mobilization of the anticipated demand.

50. Mobilization of the demand for information is an exceedingly difficult task and few countries, if any, can claim to have tackled it satisfactorily. It involves teaching prospective users the basic skills of finding and handling information, acquainting them with the sources of information they need in their various activities, updating researchers and practitioners, announcing new services, as well as generally stimulating the habit of seeking information and using it effectively. It also entails integrating the users into the

systems so intimately as to enable them to readily evaluate the services they are offered. In this respect it is important that in the generation, transmission and usage of information, the individual obligations of the generator, the intermediary and the user have to be spelt out so as to promote information use more effectively.

FORMULATING A NATIONAL INFORMATION POLICY

In national information policy-making, practical solutions which take full account of existing realities should be devised and existing policies and practices carefully examined in order to bring them into close harmony, either within a national information policy or as an integrated set of national policies relating to information. Three aspects are of interest here:

- a basic policy statement;
- policy-making procedures;
- establishing a policy-making organization.

The national information policy must be endorsed at the highest possible level if it is to be effectively implemented. This should be the responsibility of the national legislative body, the council of ministers or the appropriate local equivalent authority.

The active involvement of the user-communities in the whole process of information-related policy-making is an indispensable condition to its successful achievement.

In the following chapter the main issues in formulating a national information policy are examined bearing in mind, however, that it is not possible to provide a universal prescription suitable for all cases, since the best solution for any given situation will depend on local circumstances.

Unesco's experience suggests a possible procedure for formulating national policy - which is by no means the only one possible procedure, but is given as a basis for reflection. Policy-making is a dynamic and interactive process involving a chain of activities relating to objectives, priorities and implementation, followed by those concerning the evaluation of results which in turn are fed-back into the policy-making mechanism. Therefore, from time to time, a special committee or other collegiate body could be set up and given the task of re-formulating the national information policy in the light of new requirements.

Finally, it should be noted that the term 'policy' usually means basic principles or assumptions on which a programme of action is based. Alternatively 'policy' is sometimes defined as a 'general plan of action'. Here it is used in a broad sense and includes plans and strategies, though in the text this broader usage is made more explicit by speaking of 'policy and planning' when appropriate.

I. Basic policy statement

51. Such a statement is generally made in broad terms to enhance its chances of general acceptability and minimize the need for frequent revisions as circumstances change. It is a general framework within which the responsibilities for ensuring the provision of all kinds of information services are assigned. In the statement, the need for the effective co-ordination and for the establishment of some kind of co-ordinating mechanism should be recognized and the fact that information provision must be planned in accordance with national development goals should be stressed - thus a basis for the formulation of the national information plan as an integral part of national development plans would be provided.

52. All activities relating to the provision of information in any country are already being carried out in accordance with some kind of policy. In some cases, formal statements of national information policy have been made. In others, official policies affecting the provision of information are set out in existing legislation, for example with regard to legal deposit or public library service. In many other cases, policy is established by custom, or, in the case of individual units in the information field, implied in the broader policies of the respective parent organizations such as a research council, a university or an industry. A corpus of existing policies, all relating in varying degrees to the provision of information, can thus be found in every country.

53. The adoption of a basic policy statement makes it possible to evaluate other policies affecting the provision of information. Questions such as - which sectors of the community are likely to be affected by this policy? to which types of information and information services does it apply? does it ensure the effective and economic use of resources? how does it serve national development objectives? - are asked.

54. The value of such a statement lies not only in the text itself, but also in its implications, since by emitting it, the government or some other relevant national authority acknowledges the importance of information and accepts the primary responsibility for ensuring information services to all members of society. Filling gaps in the existing system by promoting appropriate services in hitherto neglected areas is to be clearly advocated in such a statement.

55. Although such a basic policy statement would be only meaningful if linked to a realistic plan of action, in many instances such a statement has been the starting point for activities aimed at gradually establishing or improving a national information system over the time.

56. The extent to which existing practices serve the basic information objectives outlined in the statement should be evaluated. This will make it possible to assess the measure in which such existing practices conform to or diverge from the principles adopted for the provision of information and set out in the basic policy statement. Weaknesses in the existing framework should be identified, i.e. those areas where existing practices are in conflict with one another; aspects of information provision not adequately covered by existing services should be ascertained and remedial action taken.

57. The evaluation of existing policies and practices should provide a basis for the elaboration of measures designed to bring them into a harmonious whole and direct their course in accordance with the chosen information policy. This also means that in monitoring and evaluating the effectiveness of information policies in relation to national development goals, it would be desirable to have widely accepted indicators which would facilitate assessment of the impact of information services in the different sectors of the socio-economic system.

II. Policy-making procedures

58. The elaboration of an information policy involves three basic steps.

- determining the existing information situation;
- assessing the policy implications of this situation;
- formulating a policy based on this assessment for endorsement by the relevant authority.

Determining the existing information situation

59. The formulation of a realistic policy must be based on a careful study of the existing information situation. The types of information needed for the various kinds of uses and users and the extent to which existing services can meet these needs should be clearly indicated. This study, leading to a grasp of the existing situation, is a professional responsibility requiring co-ordinated efforts by information specialists in various fields in co-operation with the groups of users concerned.

60. Any survey of existing services for the provision of information should be undertaken in parallel with the related survey of requirements. It should indicate precisely the range of services offered, the extent to which they are used and their use pattern, including the types of users and their geographical distribution. The survey should distinguish between services which, as a rule, are provided nationally and those available in other countries.

61. While much of the data sought in these surveys can be supplied by the relevant information specialists. it should be collected and assessed by independent investigators who will need also to consult the users of the services surveyed, first to corroborate or amend the information suppliers' statements on use, and second, to investigate the reasons invoked for the inadequate use of the non-use of these services. It is best to consult users about their requirements and their use of existing services at the same time.

62. This initial study must be complemented by further studies of the situation, taking into account future requirements and possible extensions or modifications of the services, if it is to provide a reliable basis for the formulation of information policies. This is also a professional responsibility to be performed either by institutions or by groups of information workers at the operational level. Such studies should be conducted by the organizations concerned or in close association with them. The choice depends on the location of suitable experts and on other local factors. These studies should also be conducted in close consultation with users.

Assessing the policy implications of the situation

63. The data collected in the course of surveys of requirements and services should be pooled and, as far as possible, matched in order to get a true picture of the situation. This can lead to a variety of conclusions, depending on the circumstances. At one extreme, information requirements can be largely met by existing services, provided that the users are taught to make an effective use of such services and that the service staff is reinforced in order to cope with the increased demand; at the other, the existing services are of the wrong kind, or are so badly provided that users, having little confidence in them, are unlikely to make further use of them. However, such extreme situations are probably rare.

64. The situations most likely to be found are those where the existing services cater, sometimes well, to certain requirements, but need to be extended, strengthened or perhaps reorganized, in order to meet the full range of user requirements. For example, a national documentation centre may supply documents, but be unable to interpret their contents; it may attempt the analysis and consolidation of information but may not have enough subject expertise to do it effectively for practitioners or decision-makers at various levels. The findings of the study may reveal a need for a new, more effective service responsible for the interpretation and 'repackaging' of information (to be carried out by subject specialists connected with a research institute) or, alternatively, subject experts may join the existing documentation centre.

65. In some countries such an assessment of policy implications of the existing information situation may be difficult to make, either because of a lack of the necessary skills, or because reliable estimates of the potential value of untried services may be hard to secure. Most such countries would benefit from help from experts and from wider exchange of experiences and they would appreciate such an assistance. When foreign experts are called upon they will find it advantageous to proceed with the assessment jointly with staff with local knowledge and experience.

66. Technical assistance agencies at the international level can also help by commissioning specialists, with experience in the management of information services, to analyze and comment on national statements of information requirements before the latter are made final and relevant action is taken. The regional pooling of expertise can also be useful, particularly in a region with varied conditions and experiences.

67. It should be possible to summarize in writing the experiences of various countries in their attempt to identify their information requirements in rapidly-developing situations. This kind of write-up could be widely circulated and possibly discussed at national and/or regional seminars attended by delegates from all the interested countries. They could tackle either the whole process of information policy formulation or concentrate on some crucial point, e.g. the assessment of policy implications of the recorded information situation, which seems to be the most intricate issue for many countries.

Formulating an information policy

68. Those responsible for the provision of information and who have the authority to obligate resources for its implementation should be involved in the

formulation of the information policy. This will require agreement within the government and the latter's interaction with other institutions. The national information policy must be endorsed at the highest possible level if it is to be implemented successfully. This should be the prerogative of the national legislative body, the council of ministers or the appropriate state equivalent. The legislative body responsible for endorsing a national information policy exists in all countries, as do institutions, professional groups and information specialists capable of carrying out studies of the existing situation.

69. The experiences of a number of countries show that the initiative for policy formulation and planning often came from professionals in the field. That is to say, in the initial or preparatory phase, it is the professionals who set the ball rolling. At the appropriate stage, the relevant government authorities are approached and their endorsement solicited. In some cases, however, those involved in the policy formulation and planning process may need to be organized into special task forces or research teams for this purpose, and eventually be reinforced by foreign experts, preferably within the same region, or by experts from other countries with a knowledge of similar national development problems.

70. In view of the rapidly changing circumstances, it may be useful for Member States to re-examine, from time to time, their respective information policies since policy-making is a dynamic and interactive process consisting of a chain of actions, such as the setting up of objectives and choosing priorities, the implementation of relevant activities, as well as the evaluation of results. These, in turn, are fed-back into the policy-making mechanism. Therefore, from time to time, a special committee or other collegiate body could be set up and endowed with the task of re-formulating the national information policy in the light of new requirements.

71. The following paragraphs suggest one possible procedure for formulating a national policy. It is intended to give an example because it is not the only one possible. Indeed, many Member States, including all those which have set up national focal points, have already started to establish their own policy-making procedures, which may differ from that outlined here.

III. Establishing a policy-making organization

72. One possible procedure is to create an ad hoc committee representing organizations with a major interest in national information policy and the government departments concerned or their local equivalents as well as the most important user groups.

73. It is important at this stage to determine exactly the interests which should be included in the committee. The main borderline interests would be: advisory services, information services in the management field and the mass media. With regard to the broad scope of the national information policy, it is often impracticable to be comprehensive at the start. Therefore, it may be wise to confine the membership initially to societal interests in science, technology and industry and, when co-operation between these organizations is achieved, to extend it to include the information services for other fields, i.e. agriculture, transport. However, information services in management, especially those dealing with public records, such as in education and health, should be given full attention from the beginning.

74. Whenever possible, the committee should be kept small - not more than 10 to 12 members: if it has to be bigger, it should delegate its work to task forces wherever practicable. The committee will need to be based on a suitable organization and, from the outset, will have to be provided with sufficient staff and resources if it is to play an effective part in policy-making.

75. Once such an ad hoc committee is set to work, it is in a good position to supervise the surveys of information requirements and of the existing services, already mentioned. The committee can also initiate the elaboration of a medium-term plan and budget for the provision of information until such time as a permanent policy and planning body is established. If such a permanent organization already exists, the ad hoc committee should give guidance for the further development of information activities.

Tasks of the policy organization

76. The first task of the committee will be to decide on the extent to which the provision of information is to be centralized and in which way it is to be decentralized among the co-operating organizations. If decisions have already been taken in this respect, the committee could review them. If the provision is decentralized, the committee will have to see whether the budgets for current and future activities should also be decentralized and, if not, to what extent central control should be exercised over them.

77. Much of the earlier controversy on the centralization versus decentralization of information services has proved to be of a purely academic nature and was often pointless. Information practices in the majority of countries have shown that the natural tendency is to opt for the decentralized provision of information with a more or less strict co-ordination of the planning and the execution of certain programmes of nation-wide interest. Thus, for instance, centralization could be of advantage for general support services, for standardized systems design and specialists' training.

78. Given a certain amount of decentralization, the committee will then have to ensure that each information responsibility is clearly given to one organization or distributed among several. Responsibility for information services in specific fields, e.g. agriculture, medicine, industry, transport, is normally easy to allocate. So is the responsibility for national bibliography and archives or the government publishing and official statistics.

79. The procedure is less straightforward for services based on scientific disciplines, for example, chemistry or biology, especially where information ana'ysis and consolidation is required, since analysis calls for subject expertise. In such a case, the information service might be best located with the experts, wherever they may be: a research institute, a university department, a relevant industrial laboratory or even an advisory office.

80. A key consideration is whether new organizations should be created for policy-making, planning and the monitoring of implementation at various levels, or whether these responsibilities should be entrusted to existing organizations, possibly strengthened and upgraded and perhaps reorganized for the purpose, or whether the policy and planning functions, and perhaps others should be retained by the ad hoc committee and its supporting staff. On the basis of available evidence, it would seem that the creation of initial working groups or ad hoc committees which give way to, or end up as, permanent advisory or planning bodies appears to be the most common pattern met so far.

81. If the committee is to be superseded, the crucial decision at this stage is whether a new policy organization should be created or an existing one designed to undertake policy and planning functions. A problem of equal importance is whether the policy organization should be given operational as well as policy responsibilities, or should it be part of an existing institution with operational responsibilities, such as a national documentation centre. There are arguments for and against these courses of action.

82. A link with operations can keep planners more knowledgeable about the activities with which they are concerned, but operational centres, however wide-ranging, tend to be regarded as less independent and less impartial, lacking the necessary detachment and objectivity required in taking decisions than an institution which is not involved in operations. In some countries there may be no debate on this issue; an operational centre may exist which commands such wide support that there is no real alternative. In others, the situation may be less clear and it is difficult to give advice without knowledge of local conditions.

83. Several countries make their policy organization responsible for research and for the financing of experiments with new information technologies. Such an organization may also be accepted without difficulty as the best location for courses, seminars and demonstrations designed for professional staff and users.

84. If such a policy organization is created or designated, with guidance from a representative advisory or steering committee, it can obviously become the 'national focal point' mentioned earlier (see PREFACE). If no such organization can be created or designated, it would be best for the existing ad hoc committee and its supporting staff, to retain the focal function on a permanent basis. The choice must depend entirely on national circumstances, though external advice can help to assess the practicality of alternative courses of action. The most important is for the mechanism to work well and command respect.

Role of information users

85. Again, it should be emphasized that the best solution in any given situation will depend on local circumstances. It is not possible to provide a universal prescription suitable for all countries. Whatever solution is adopted, however, it should ensure that those responsible for recommending and formulating information policy are working in concert with information users, either by inviting their representatives to sit on information advisory and steering committees, or by co-opting them to membership of the main policy and planning body.

86. As it has already been said, the consultation of users in the course of studies devoted to the identification of information requirements is only part of the procedure. Most requirements are usually determined by involving professionals working in the field of information provision. While this is obviously a sensible procedure, there is an inherent risk that professionals might become oblivious of users' virtual needs. That this is not merely a theoretical risk, there is evidence that all over the world there are many information services, known to be professionally impeccable but under-utilized. This is very often the case in developing countries which have invested heavily in them at the expense of other pressing problems.

87. With respect to many such deplorable failures resulting in considerable financial loss and deep frustation of users, it is now seen as indispensable that the users be involved not only in the assessment of needs, but fully integrated in the whole process of information policy-making and planning. In this way, they will become increasingly aware of the existence and value of information, familiar with the functioning of information services, partly responsible for their effectiveness and capable of evaluating their performance. By 'stimulating demand' in this manner and ensuring critical feed-back, a procedure often neglected, a possible way is found for effectively and economically providing information at the national level.

When a realistic national information policy has been formulated on the basis of a thorough assessment of the existing situation and in accordance with the national development goals, priorities must be assigned to the various policy provisions, and resources for their implementation allocated accordingly. This requires planning. Planning is the means of attaining the overall policy objectives and involves the selection of suitable strategies to attain these objectives within a given period of time. The aspects of interest here are:

planning and setting priorities;

preparation of programmes;

preparation of budgets;

establishing a planning mechanism.

Any of the major constraints on planning - existing information provision, available resources, user needs - may change during the planning period. This requires that plans be flexible and subject to modification at any time during the period covered by the plan, though remaining consistent. It also indicates that planning is a continuous process and not an exercise which is completed when the plan document is prepared.

Setting priorities for information provision in accordance with national needs raises several complex questions which will have to be answered in due course. Commitment to long-term planning for information provision should be accompanied by measures designed to ensure periodic reviews and adjustments of programmes. The various options offered at the stage of implementation of the national policy and programming and budgeting issues are considered in this chapter.

It is also suggested that the performance of all the complex tasks relating to the implementation of the policy could be greatly facilitated by the establishment of a permanent planning mechanism which may be parallel to, or integrated with either the policy-making mechanism or a co-ordinating mechanism for information provision, or both.

I. Planning and setting priorities

88. Implementing a national information policy is generally admitted to be the most important aspect of the entire process of information policy-making and planning with the objective of meeting national development goals. It is at the same time a complex and continuous activity and not an exercise which could be finalized in any given amount of time. Therefore, it is not necessary to wait for the formulation of a perfect and comprehensive national policy before initiating action.

89. Many important operations can be undertaken even in the absence of an all-embracing policy and plan, people have to be encouraged to do something once it is known to be worth doing either by way of laying the basis of a national infrastructure for information services or meeting certain important information demands of society. Furthermore, experiences of other countries can be drawn upon in the early phases of one's own implementation. It is a common wisdom that doing something is better than doing nothing.

90. Thus, when a realistic national information policy has been formulated - in accordance with national development goals and on the basis of a thorough understanding of the existing situation - the various policy provisions must be assigned priorities, and resources for their implementation sought and allocated accordingly. This requires planning. It involves the selection of suitable approaches to attain the policy objectives within a given period of time.

91. Any of the major factors usually taken into account in planning - existing information services, available resources, user needs - may change during the period covered by the plan. Therefore, plans must be flexible and subject to modification at any time while keeping their own internal consistency. Planning is a continuous process and it is not completed when the plan document is prepared. However, the other tendency should be avoided too, i.e. changing plans all the time: rigid plans are bad, inconstant plans are bad as well.

92. There is general agreement, based on world-wide evidence, that plans made for the implementation of adopted national information policies vary considerably from country to country. It is axiomatic that information planning must serve a nation's perception of its significant information needs and that such needs will vary widely. There is no such concept as 'global planning', which is generally considered as impractical even undesirable. In drawing up guidelines for national information policy implementation, it must be recognized that accommodating to the planning activities of different countries is a necessity. This applies not so much to the technical aspects of information services, but rather to their integration into the economic and social structures of the countries.

93. In compliance with the general planning methodology and the specific modalities adopted by the different countries, the preparation of plans which are intended to implement the provisions of the national information policy is a professional task requiring the combined efforts of planners and information specialists in various fields, and which should thus be performed at the information-relating professional co-ordinating level. Equally important is the involvement of users' representatives in all stages of the planning process.

94. It is generally agreed, in many countries that participation of users should be given special attention, preference being given to continuous informal monitoring rather than dependence only on formal evaluative studies, though users' consultation through questionnaires and at meetings is considered as useful. This is particularly important when assigning priorities to various sectoral information services which should directly cater to user needs, even if it is generally admitted that national priorities assigned to different sectors and user groups are largely derived from the priorities established elsewhere in the overall national development planning process.

95. Once finalized, the plans for the implementation of the information policy must be approved at the relevant government level in the same way as are approved those concerning other fields of national activity and which serve public purposes. This requires the co-ordination at the inter-ministerial or some other equivalent level, both of government and other interests throughout the country. The implementation of the approved plans must rest with individual institutions at the operational level through the execution of their programmes and projects.

96. It is equally possible for a government or a national legislative body to formulate and endorse an information policy and then leave its implementation to the institutions concerned without further guidance or support. Such a procedure, however, carries a considerable risk and implies the existence of a fairly well developed national information infrastructure, i.e. all the human, material and financial resources devoted to the provision of information. But even then, most institutions would need additional resources to implement a new policy.

97. Very often, there will not be enough resources available to implement all new policy provisions simultaneously. Again, priorities must be established in order to distribute the available resources among those involved in the implementation of the national information policy, even if those concerned carry out this implementation on their own, in accordance with their own plans and programmes. Thus, planning at some level and over limited time spans is an essential and inescapable necessity, if only to ensure the appropriate budgetary allocation.

The time element

98. In planning, the time element is very important. Limited resources make it imperative to calculate in advance their optimal distribution, hence establishing priorities over a given period of time is essential. Further, in relation to timing, setting priorities for the provision of information according to national needs raises several questions such as: what constitutes a proper balance between priorities accorded respectively to short-term and long-term planning? The provision of information for scientific research, for instance, requires the former, while long-term planning is usually necessary for information provision in economic development.

99. The rapidity of technological change in the area of information-handling and the present uncertainties as regards funding militate against long-term planning. Under these conditions, long-term plans with their inherent lack of flexibility could be the cause of failure because of the inability to adapt to change they entail. Therefore, countries should not be committed to long-term plans for the provision of information unless these are accompanied by measures ensuring periodic reviews and prompt adjustments of the programmes to changing circumstances, remaining of course basically consistent. On the other hand, participation in co-operative international information programmes requires continued financing over a period of time, and hence necessitates the long-term planning of resources.

100. The general opinion is that short-term planning is not useful, unless it is conceived as part of a medium-term or long-term plan. Therefore one solution to this dilemma would be to prepare a medium-term programme and budget, covering a period of up to five or six years and devise steps which can be taken during this period in order to implement a national information

policy. Starting small and extending gradually may be advisable in some cases, but this is not to be considered as a rule. Namely, there are instances where it is more productive to pool forces and means in a considerable effort at the start which is likely to have a nation-wide impact and attract important financial support more easily.

Provision of information

101. It has been repeatedly stated that the provision of information being subordinated to national development objectives must serve to attain these broader national goals. The implementation of national policies for the provision of information to development will cover:

- information generated within the country; this is a resource for which national funds have already been expended and it is necessary to ensure its availability in order to meet national needs in accordance with development priorities;

- information available outside the country; this information should be suitably selected, acquired and organized so that it may also be used to meet national needs in accordance with development priorities; access to computerized information services abroad should be ensured whenever it is considered to be advantageous;

- international co-operative activities, undertaken under bilateral, regional and international programmes with special reference to the benefits to national development accruing from such activities, especially those concerning the exchange of information on solutions found for specific national problems.

102. A first step would be to identify those categories of information that are best obtained from national sources or, possibly through regional co-operation. Much of the economic, social and cultural information required for development falls into these categories; it can range from financial data to information on social attitudes to technological change.

103. Although setting up national information services of this kind can be costly in terms of money and scarce professional skills, the recent advances in the new information technologies, especially microcomputing, make it easier to set up databases locally, even for small countries. These technologies should be introduced as soon as possible, with a strict observance of priorities, and the assignment of responsibility for each technology. Essential services include national and local statistics, inventories of current research, records of domestic publications, community information services and referral services, including directories of information facilities, experts and services, all of which should be widely publicized.

104. A second step is to find out systematically if a better use could be made of resources available outside the country, such as the remote consultation of collections of literature, considered as an alternative to building-up large national stocks of expensive books and journals; printed abstracting and indexing services, and computer-based searches of databases; information analysis and data centres, including those being set up with the support of international agencies.

105. Both steps call for the creation of an infrastructural network of archives, libraries, documentation and information centres, which linked together can provide users, wherever they may be, with direct or indirect access to both domestic and foreign sources of information. The network should, above all, ensure that national and 'core' foreign sources of information are held at appropriate and easily accessible locations; that there exist effective lending and copying, eventually also electronic mail arrangements; and above all that knowledge of information sources is imparted through active dissemination, retrieval and referral services; and that due attention is paid to increasing the users' awareness of the value and availability of information, in particular through community information services which would respond directly to information demands and not merely refer the users to documents.

Information on information

106. The creation of world-wide referral facilities which would enable users, especially in developing countries, to obtain information related to their specific needs, regardless of its location and across national boundaries, is the objective of the proposed Global Network of Scientific and Technological Information. The concept of the Global Network has been approved at the UN Conference on Science and Technology for Development, held in Vienna in 1979.

107. Since that date, the concept of the Global Network has been further elaborated within the framework of the UN Administrative Committee on Co-ordination. It has been agreed that the Global Network should be established in stages, the first being the gradual introduction of its referral function. This function would mainly cover, at the international level attempting to become as comprehensive as possible, the activities which are sometimes designated by the expression 'information on information'. Further stages of the Global Network would include the provision of substantive information, which pre-supposes a sound information infrastructure at national levels. The creation of national nodes and links between national information services and the Global Network is strongly advocated.

108. The compilation of a global directory of major information services in the world, including a detailed subject index, was agreed to be one of the first activities of this network. Countries were invited, either to set up national nodes or to make provision in their national information programmes for their participation in information exchanges through the future Global Network. Here, it should be reiterated that only a viable national information system will enable individual countries to benefit from information exchange programmes and services established at the international level.

II. Preparation of programmes

109. Based on the assumption that, in most cases, the preparation of the programmes is decentralized, each organization which has been assigned responsibilities, whether for information services or for support activities such as education and research, should be invited to prepare, in consultation with user groups, draft programmes covering these activities for the medium-term. There may be one programme for each branch of industry and one for each of the main social areas: health, housing, education, etc. The programmes of university, college, school and public information facilities, libraries and archives can be included.

110. Each programme involving information services should state clearly what new services are to be created, what improvements are to be made to existing services, and what support activities are proposed on a subject basis as distinct from a general basis. Programmes for support activities should indicate the new training courses to be run, improvements to old ones, demonstrations to be held, research projects to be undertaken, and specific investments to be made in the new information technologies.

111. All programmes should be fairly realistic in size, but at the preparatory stage can be somewhat larger than the budgets will finally allow since there is advantage in being able to reduce the size of the proposed programmes in case of budget restrictions. It should be emphasized that cuts in programmes resulting from budget restrictions can be reviewed and handled as a problem of phasing the programmes over a longer period.

112. Next, the responsible organizations are asked to submit their programmes to the national policy committee or some other co-ordinating body and so benefit from one another's experience in elaborating and presenting a programme; suggest where individual programmes can be improved; identify areas where co-operation between organizations may be helpful; secure central support at a higher level, for realistic estimates of expenditure.

113. In most cases, it would be advantageous if the policy committee or co-ordinating organization could also take some of the following actions: harmonize the various programmes and present them coherently as a combined programme; exercise control over the final size and shape of the combined programme, secure a desirable balance between priority activities, avoid wasteful duplication of work and widen the potential use of specific services; present the combined programme to the respective budget authorities with a single justification based on the generally accepted arguments concerning the importance of information to socio-economic and cultural development.

114. The preparation and review of these programmes for the implementation of the chosen policy concerns the available resources and, though time-consuming, should be regarded as a good managerial practice, since it can stimulate sound thinking, forward vision, clear expression of ideas and forceful argument in support of proposals. All this work is particularly meaningful if senior administrators are to become convinced of the importance of building effective national information services.

III. Preparation of budgets

115. Each draft programme for information activities should be accompanied by a statement of the estimated expenditure and, where appropriate, income. The annual cost of each activity in the programme will depend on the charges made and on the length of the period over which the total cost is to be spread. Costing should be done with care, and should include professional and support staff, purchase and maintenance of equipment, travel, meetings and the various overheads.

116. Some countries may have difficulties in choosing the proper costing procedure and, though much useful information has been published, e.g. on the average cost of the different information handling procedures (indexing, storing, retrieving, repackaging, etc.), the prices of books and periodicals, and the cost of accessing computerized data bases, such information is fragmented and

widely scattered in the literature. Therefore, it might be useful to undertake some compilation of results and comparative studies in this respect, perhaps regionally or at the international level.

117. The final stage of the elaboration of the programme for the implementation of the chosen policy concerns the available resources for the draft programmes. This is done through the preparation of annual or biennial budgets and possibly five or six-year working capital budgets. Budgeting can be either entirely decentralized, in which case each information programme has to compete with programmes of other kinds for its financing, or it can be centralized, at least so far as government funding is concerned. A country which has a national plan for economic development is more likely to budget in a centralized way than one which has no such plan.

118. Another approach to budgeting is worth mentioning. The provision of information could be regarded as an overhead item of expenditure on the activities to which the information relates - whether they be research, industrial production or social service. Once regarded as an overhead, information can be costed as a percentage of total expenditure and programmes can be elaborated within the limits of the funds provided.

119. The main difficulty lies in determining what this percentage should be. Even so, the possibility is worth examining. Each industrial enterprise, each research institute and each public service should be able to express its expenditure on agreed categories of information as a percentage of total expenditure. If further study suggests that these percentages form a coherent pattern, the pattern could be made widely known, discussed and eventually incorporated in guidelines for national information policy-making.

IV. Establishing a planning mechanism

120. The performance of all the complex tasks relating to the implementation of the information policy could be greatly facilitated by the establishment of a permanent planning mechanism which may be parallel to, or integrated with, either the policy-making mechanism or a co-ordinating mechanism for information provision, or both.

121. In view of the difficulty of separating, in practice, the functions of policy-making and planning, one the one hand, and the functions of implementation, including interactive evaluation, on the other hand, the most practical solution in many countries has been to locate all these functions within the same organizational structure. This structure has been named: the 'national focal point' or similarly. Such a national information co-ordinating organization is either independent or part of a government department or of an existing professional institution, as is more often the case. In the following chapter the main features of this kind of organizations are examined, though it is not possible to be exhaustive owing to the innumerable local factors influencing the final organizational structure to be adopted.

NATIONAL INFORMATION CO-ORDINATING ORGANIZATION

Formulation of the national information policy, planning, and the harmonization of all information activities usually necessitate the establishment of an appropriate co-ordinating mechanism which could be named 'national focal point', as proposed by Unesco in the UNISIST programme, or else the national information co-ordinating organization, a denomination which may be proposed.

Unesco's Member States were invited by the General Conference in 1972 to establish national focal points or to designate existing organizations as such in order to guide, stimulate and co-ordinate the development in information resources and services.

Unesco's Member States have had varied results in implementing these recommendations put forward by the General Conference of Unesco. Some confusion was generated by the establishment in several countries of multiple 'focal points' for participation in various international information systems. It is obvious that the term 'national focal point' used in this connection does not reflect the central overall co-ordinating role and that the term 'national information co-ordinating organization' might better reflect the responsibilities of the latter in the formulation and implementation of the national information policy.

The principle functions of this organization would be: policy formulation, the preparation of plans for its implementation and the co-ordination of operational activities involved in the execution of these plans.

A suitable location must be found for the co-ordinating organization. It is almost impossible to draw up detailed guidelines in this respect for general use. In many countries the chosen location is likely to be a government department responsible for policy-making, such as the planning agency or the prime minister's office.

Another possible solution, adopted in several countries, is to locate the co-ordinating body in an existing institution with operational responsibilities, such as a national documentation centre.

Yet another possibility is to endow a committee or some other similar group with the overall co-ordinating responsibility, establishing its executive secretariat at the same time as a permanent information co-ordinating organization.

I. Historical

122. The Member States of Unesco were invited by the General Conference in 1972 to establish 'national focal points' by either creating new organizations for this purpose or by designating existing ones to act as such with a view to guiding, stimulating and co-ordinating the development of national information resources and services. Basic guidance on the location and functions of the national focal points were given in the letter of the Director-General to Member States in 1973 (CL/2297).

123. In implementing the recommendations contained in the above-mentioned documents, Unesco's Member States have obtained varied results. The difficulties encountered by the various national focal points established to date have been caused either by the low priority assigned by the governments concerned to information functions in general, or by the inappropriate designation and location of the focal point in the government structure or that of some other service, or again by the lack of support given to information services.

124. The experience of some countries, however, revealed that the existence of strong sectoral information interests provokes considerable resistance to any attempt at co-ordination, this resistance being based on different conceptions of information priorities, on vested interests or sheer inertia. Experience also showed that, as financial resources become more and more scarce, sectoral policies tend to give way to co-ordination, which suggests that one of the strong arguments in support of co-ordination is the cutting-down of costs, but even where funds do not present a problem, scarce manpower can become a serious constraint and makes co-ordination a necessity.

125. The establishment in several countries of multiple 'focal points' for participation in various international information systems also generated some confusion. These focal points act as national input centres for entering locally produced information into the specialized international information systems, operated under the auspices of various United Nations agencies (e.g. AGRIS/FAO: INFOTERRA/UNEP, etc.) and/or as the local output point for the retrieval of information from their databanks to be used in the country.

126. It is obvious that the term 'national focal point' used in this connection does not reflect the central overall co-ordinating role and that the term 'national information co-ordinating organization', although more cumbersome, might better reflect the responsibilities of the proposed organization in the formulation and implementation of the national information policy.

II. Functions

127. The main functions of such an organization would be, as stated earlier in this document, to initiate the formulation of policy, to prepare plans for its implementation and to co-ordinate and monitor the operational activities involved in the execution of these plans, in accordance with the objectives of the national information policy.

128. Initially, the proposed organization could supervise the assessment of national information requirements and of existing services and resources, including the use of foreign information resources.

129. It would then proceed to distribute responsibilities for specific, sectoral and general information services to appropriate institutions and begin to elaborate a medium-term plan and the first programmes and budgets or, alternatively, to elaborate programmes for new activities not yet covered by the existing services.

130. The co-ordinating organization should, further, monitor the performance of institutions that have been given specific responsibilities for operational or support services. It should identify gaps in existing information services and take remedial measures.

131. It should also take steps to render information users at all levels, including those at government level, increasingly aware of the role played by information in socio-economic and cultural affairs.

132. Further, the proposed organization should support the national information infrastructures by promoting appropriate legislation and adequate financing, recruiting qualified manpower and facilitating the application of new information technologies.

133. It should also promote co-operation between all types of information services in the country by offering technical advice, encouraging the application of norms and standards and the introduction of modern methods of information handling.

134. One possible way of doing this is to publish a newsletter or similar bulletin, and distribute it widely. This publication could cover information on advances in the information field, recent progress in computerized services, forthcoming meetings, educational opportunities, sources of technical assistance and how to approach them, etc.

135. The co-ordinating organization might also produce or commission the production of guides to information sources, inventories of abstracting and indexing services, lists of journals, directories of document collections and databases in the country and abroad, inventories of experts and facilities, in short, all guides that are usually resorted to when dealing with 'information on information'.

136. The organization should also endeavour to systematically explore the possibility for information services acquiring information sources on preferential terms from abroad, either on an exchange basis or by purchase or by access to computerized information networks.

III. Location

137. A suitable location must be found for the co-ordinating organization. However, it is almost impossible to draw up for general use detailed guidelines for its choice, which normally depends entirely on local circumstances.

138. In some countries the chosen location is likely to be a government department responsible for policy-making, such as the planning commission of the prime minister's office. Other departments could be envisaged too. However, the choice of a department is difficult because information is important to several departments - culture, education science; economic affairs, industry and agriculture; the social departments such as health and welfare, etc. This is made obvious everywhere by the proliferation of the sectoral information activities carried out by the various government departments and ministries.

139. This does not necessarily mean that an existing national focal point or co-ordinating committee, already located in a scientific/technological department or institution could no longer exercise its information planning and

co-ordination functions, but it does suggest that such a body should consider adopting a broader basis for its activities than hitherto. It is probably best for such an institution to start co-ordination in areas of its own competence or mandate, and then, if successful, attempt to persuade others to accept the idea of a co-ordinated programme being in everybody's interest.

140. Another possible solution, adopted in some countries, is to locate the co-ordinating body in an existing institution with operational responsibilities, such as a national documentation centre, and either having it as a separate unit attached to the centre, or making it a component part of the centre itself. In either case, there are arguments against this choice, on the grounds that the institution with policy, planning and co-ordinating functions should be independent of operational work in order to remain unbiased in its monitoring functions.

141. Others consider an institution providing general information services, such as the national library or the national documentation centre, as representing by vocation the national focal point, its co-ordinating terms of reference being either implied or explicitly stated. In some countries there may be no debate on this issue, in others, the situation may be so confused as to delay effective action. In any case, it is difficult to offer guidelines without local experience and knowledge.

142. Among other possibilities, one has materialized in several countries, namely the devolution upon a committee or some other similar body of the over-all co-ordinating responsibility. At the same time, this committee's executive secretariat would be established as a permanent information co-ordinating organization, reporting to the committee's chairman. The co-ordination role is envisaged here mainly as an activity for central stimulation and guidance which would perhaps be more acceptable, particularly if the membership of the committee is representative of the various institutional and professional interests of the country.

143. 'Co-ordination' consisting mainly in stimulating and facilitating voluntary co-operation is usually considered as an advantage by each and every co-operating institution. However, there is a certain disadvantage in adopting such a loose connotation of the term co-ordination, namely the protracted time taken to reach decisions in the absence of a consensus when there are diverging interests, often aggravated by misunderstandings. But the advantages in having all the interested protagonists involved in the provision and use of information willingly and actively co-operating and sharing resources, outweigh this probably minor disadvantage.

144. There is also another difficulty inherent in all attempts at setting up 'representative' committees, it is that of making such committees suitably representative and at the same time seeing to it that they remain of a manageable size. This can be remedied to some extent by establishing on a temporary basis ad hoc sub-committees or task forces for specific purposes.

145. In the case of the first two possible locations mentioned earlier for the co-ordinating organization (a government department or a national information agency), much would be gained by setting up an advisory or steering committee of an intersectoral or professional character (preferably both) which would supervise and guide the formulation and implementation of policies and plans, leaving the day-to-day aspects of co-ordination to the body designated as the national co-ordinating organization. Consultation with user groups should become a regular practice, both for the committee and the co-ordinating organization.

IV. Structure

146. The structure of a national co-ordinating organization will depend to a large extent on local circumstances, but it should be staffed by full-time professional staff from the outset.

147. Sometimes doubts are raised on the usefulness of such a permanent structure on the grounds that it consumes resources which otherwise could be used for operational purposes. Shortage of funds, and of suitable people, is likely to keep the staff small. This is not a serious problem, provided that they are competent. A small team usually has a higher output per person than a large one, and it can always delegate specific tasks to other organizations or to consultants, including consultants from abroad. The staff will certainly need technical advice, but this is best obtained from specialists whose primary employment is elsewhere.

148. Taken as a whole, the staff must be well motivated, able to keep up-to-date on a wide range of topics and to plan and control studies, must show initiative and have good writing and linguistic capabilities. Experience in information work need not be considered as a prerequisite to recruitment. However, the staff should include at least one fully trained information specialist with recent experience of service work in the information field.

149. The rest of the staff should be chosen from the widest possible range of candidates with intellectual and administrative ability. When only two or three professionals are needed, in the beginning, there is an advantage in taking one able administrator on secondment for a limited period who, if sufficiently motivated, might be transferred permanently to information work.

150. It is important that each staff member of this organization should have a status in the administrative and professional hierarchy commensurate with their functions. The chief officer should have the same rank as that of the members of other policy-making committees. He should report directly to a high-ranking officer such as the head of a government department or the chairman of the responsible commission or committee.

151. The co-ordinating organization should be required to prepare its own programmes and budgets, indicating the priority activities on which effort is to be concentrated during the prescribed period of time; the functions to be delegated to other organizations, particularly the sectoral information services, and the results to be achieved. In the elaboration of the budget, a distinction must be made between the internal expenditure and delegated (contract) expenditures, as well as between national and foreign (international) sources of financing.

V. Links with otker organizations

152. The national information co-ordinating organization should be encouraged to maintain close contacts with all the national sources of information and the international sectoral 'focal points' mentioned earlier (see paragraph 126) established in the country, as well as with the national nodes of the future Global Network of Scientific and Technological Information (see paragraphs 107, 108).

153. This organization could easily provide secretarial services to other permanent or ad hoc committees set up in the country in the field of information and dealing with local, regional or international issues. One of these committees could be the PGI-UNISIST National Committee, as described in the Annex.

154. An important role of this organization would be to promote regional co-operation. This would entail taking part regularly in regional meetings, initiating and maintaining working contacts with other national information systems in the region, suggesting co-operative projects, especially with a view to up-dating the education and training of information-related specialists working in the region.

155. The co-ordinating organization could also be considered to represent the Member State concerned at intergovernmental organizations and conferences dealing with information matters, notably Unesco and its General Information Programme (PGI).

BIBLIOGRAPHY

1. Information policy objectives: UNISIST proposals. - Paris: Unesco 1974 - 26 p. - (SC-74/WS/3)

2. Guidelines on the planning of national scientific and technological information systems / study by Carl Keren. - Paris: Unesco, 1975 - 55 p. - (SC-75/WS/39)

3. UNISIST MEETING ON THE PLANNING AND IMPLEMENTATION OF NATIONAL INFORMATION ACTIVITIES IN SCIENCE AND TECHNOLOGY. 1. Herceg Novi, Yugoslavia, 1976. - Information policy for development: national and international responsibilities: main issues discussed (at the meeting)/ prepared by Scott Adams. - Paris: Unesco 1976 - 48 p. - (SC-76/CONF. 690/COL.8)

4. UNISIST MEETING ON THE PLANNING AND IMPLEMENTING OF NATIONAL INFORMATION ACTIVITIES IN SCIENCE AND TECHNOLOGY. 2. Friedrichsdorf, Federal Republic of Germany 1977. - Management of information resources at the national level: main issues discussed (at the meeting) / prepared by Scott Adams. - Paris: Unesco, 1978. - 14 p. - (PGI-77/CONF.605/COL.3)

5. INTERGOVERNMENTAL CONFERENCE ON SCIENTIFIC AND TECHNOLOGICAL INFORMATION FOR DEVELOPMENT: UNISIST II. Paris, 1979. - Final report. - Paris: Unesco, 1979. - 69 p. - (PGI-MD/1)

6. UNISIST MEETING OF EXPERTS ON REGIONAL INFORMATION POLICY AND PLANNING IN WEST AFRICA. 1. Accra, Ghana, 1978. - Information policy and planning for economic and social development: a dynamic approach / working document prepared by John C. Gray. - Paris: Unesco, 1978. - 24 p. - (PGI/UNISIST/ WA/I/3)

7. INTERGOVERNMENTAL COUNCIL FOR THE GENERAL INFORMATION PROGRAMME. 3. Paris, 1981. - Science and technology information: analytical case studies, executive summary report. - Paris: Unesco, 1984. - 10 p. - (PGI-81/ COUNCIL/II/Inf.5)

8. UNESCO. General Conference. 4. Extraordinary session. Paris, 1982. - Medium-term plan (1984-1989). - Paris: Unesco, 1984

9. INTERNATIONAL SEMINAR ON NATIONAL INFORMATION POLICY AND PLANNING. Dubrovnik, Yugoslavia, June 1984. - National information policy: scope, formulation and implementation/draft guidelines issued as a working document. - Paris: Unesco, 1984

10. Unpublished material and studies prepared for Unesco by S. Adams, A. Adu, J. Gray and S. Parker.

ANNEX

PGI-UNISIST NATIONAL COMMITTEE

In order that a fruitful co-operation may develop between Unesco/PGI-UNISIST and Member States, and to ensure the latter's optimal participation in Unesco's information programmes, Member States were invited by the Director-General of Unesco to set up National Committees, first for UNISIST in 1972, and later in 1976, also for PGI, and which were then named the PGI-UNISIST National Committees (UPNC).

In the documents emitted by Unesco Secretariat in pursuance of the relevant decisions taken at the seventeenth (1972) and nineteenth (1976) sessions of the General Conference of Unesco, it has been stated that the broad function of a UPNC is to advise the national information co-ordinating organization and other interested organizations in Member States on all aspects of participation in Unesco's information activities. This would entail:

- participating in the work of the Intergovernmental Council for the General Information Programme (PGI including UNISIST);
- participating in the periodical UNISIST Intergovernmental conferences and other meetings related to PGI and the other information programmes of Unesco;
- liaison with the different units in Unesco organizing information activities, and assessment of the effectiveness of co-operation with these units;
- the monitoring of the progress achieved, and whenever necessary disseminating the information so gained, and promoting relevant follow-up action; conversely monitoring national achievements and communicating them to Unesco;
- responding to Unesco/PGI-UNISIST initiatives (supplying information, conducting surveys, expressing opinion on specific issues, submitting names of experts, undertaking specific short-term or long-term activities, co-operating in regional projects) and taking national initiatives as a contribution to PGI-UNISIST:
- advising Unesco on means and methods of developing and strengthening links with national information systems in Member States, especially with a view to assisting the developing countries to set up modern information services.

Since Unesco/PGI-UNISIST calls for a partnership between governments and the various communities of users and information-related specialists, the membership of the UPNC should represent all these groups of interests in the country. In some instances, it may be best to call on outstanding individuals to represent users and information specialists but, in general, it would seem preferable to call on official representatives of institutions

who would represent their interests, since the primary function of the UPNC is to publicize Unesco's activities and encourage the institutions concerned to take part in these activities.

It would probably be best to place formal responsibility for this committee with the government department or the national agency dealing with Unesco affairs, which would provide secretarial service to the committee. Alternatively, the secretariat for the committee could be provided by some other suitable organization such as by the national information co-ordinating organization mentioned earlier.

The UPNC should meet before each meeting of the Intergovernmental Council for PGI and each UNISIST Intergovernmental Conference as well as at an appropriate time before the General Conference of Unesco. Apart from these, it should be convened only as frequently as business requires, avoiding however to overload the committee with detail or with activities which could be dealt with without having to call a full meeting of the committee.